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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,821	01/25/2002	David B. Slater JR.	5308-162	4259

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EXAMINER

BAUMEISTER, BRADLEY W

ART UNIT PAPER NUMBER

2815

DATE MAILED: 06/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,821

Applicant(s)

Slater, Jr. et al.

Examiner

B. William Baumeister

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jan 29, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-123 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claims 1-123 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Election/Restriction

1. Applicant's election without traverse of invention IV in Paper No. 11 is acknowledged.
2. Upon further review of the claims, the Examiner notes that the issued restriction contained some inaccuracies relating to the characterization of which inventions various claims were directed. Specifically, The Examiner notes that while claims 46 and 48-61 are directed towards elected invention IV (extraction means comprising reflector/electrode structures), independent claims 62, 74, 76 and 87 not only set forth limitations directed toward reflector/electrode structures of elected invention IV, but also set forth that the substrate has a first face having a smaller surface area than the second face (an ATON structure of non-elected invention II). Accordingly, the claims are, in fact, directed towards the following inventions:
 - a. claims 62, 64-74, 76 and 78-87 (as well as previously listed claim 37) are directed towards invention XVI: the combination of a reflector/electrode structure and an ATON structure);
 - b. Dependent claims 63, 75, 77 and 88 (as well as previously listed claims 43-45) are directed towards invention XVIII: the combination of a reflector/electrode structure, an ATON structure, and a mounting structure.
 - c. Accordingly, the previous restriction is withdrawn and superseded by the present restriction requirement which maintains the same delineation of inventions, but corrects the

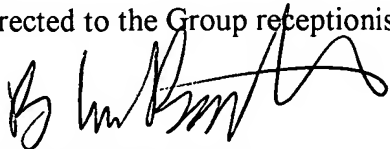
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characterization of the inventions to which the above claims are directed. A revised appendix that includes these corrections is attached for applicant's convenience.

3. On June 26, 2003 the Examiner held a telephone conversation with Applicant's representative, Mr. Mitchell Bigel, to discuss the above-noted issue. For better customer service, it was agreed that the Examiner would send out this new restriction requirement in order to give Applicants sufficient time to decide whether or not this correction would induce them to change their election.

INFORMATION ON HOW TO CONTACT THE USPTO

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner, **B. William Baumeister**, at (703) 306-9165. The examiner can normally be reached Monday through Friday, 8:30 a.m. to 5:00 p.m. If the Examiner is not available, the Examiner's supervisor, Mr. Eddie Lee, can be reached at (703) 308-1690. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



B. William Baumeister

Primary Examiner, Art Unit 2815

June 26, 2003

Application/Control Number: 10/057,821

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RESTRICTION APPENDIX (REVISED)

Linking Claim		121
I.	pedestals	1, 14, 30, 33, 123
	IA. = grooves	15, 20
	IB = vias	22, 26
II.	ATON	34, 35, 38
III.	SiC w/ compensating dopants	89, 102, 118, 122
IV.	Reflector/electrode structure	<u>46, 48-61</u>
VA.	I + mount adjacent diode	2
VB.	I + mount adjacent substrate	3
VIA.	VA + IV	4, 6, 8-10, 12, 31
VIB.	VB + IV	5, 7, 11, 13, 32
VII.	IA + orientation of groove s/w &/or floor	17-19
VIII.	IA + shape of pedestal	16
IX.	IA + textured surface	21
X.	IA + electrode structure	31
XI.	IB + orientation of via s/w &/or floor	23-25, 28
XII.	IB + textured surface	27
XIII.	IB + electrode structure	32
XIV.	pedestal (I) + ATON (II)	29
XV.	II + textured	36
XVI.	II + electrode (IV)	37, <u>62, 64-74, 76, 78-87</u>
XVII.	II + mount	39-41
XVIII.	II + mount + electrode (IV)	43-45, <u>63, 75, 77, 88</u>
XIX.	IV + mount	47
XXA.	III + mount adj diode	90
XXB.	III + mount adj s/s	91
XXIA.	III + diode mount + contact/reflector	92, 94, 96-98, 100
XXIB.	III + s/s mount + contact/reflector	93, 95, 99, 101
XXII.	IA + III	103, 108
XXIII.	IA + III + orient. of groove s/w &/or floor	105-107
XXIV.	IA + III + shape of pedestal	104
XXV.	IA + III + textured surface	109
XXVI.	IA + III + electrode (IV)	119
XXVII.	IB + III	110, 114
XXVIII.	IB + III + orientation of via s/w &/or floor	111-113, 116
XXIX.	IB + III + textured surface	115
XXX.	IB + III + electrode	120
XXXI.	II + III	117

 6/26/03